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Perception of rural community on the importance of land certification and its benefit on tenure security, in Soddo Zuriya Woreda, Southern Ethiopia

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ABSTRACT

Land is a basic resource for improving the livelihoods and considered an asset to accumulate wealth for the rural community in Ethiopia. It is poorly managed and losing its productivity because of land degradation. Lack of tenure security greatly impacted successful implementation of land management interventions through public and community initiative. This study is conducted in Soddo Zuriya Woreda with the objective of analyzing farmers' perception on importance of land registration and certification for ensuring land tenure security for sustainable implementation of soil and water conservation practices. A total of 149 household respondents were selected from three Kebele/village using probability proportional methods to determine the sample sizes. Both quantitative and qualitative data were used to analyze information in which quantitative data collected from sampled households using structured questionnaire whereas the qualitative data were collected from focus group discussions and key informants' interviews and field observation. Descriptive statistics were used to summarize and analyze the data. The result showed that there is gender imbalance in land holding in which men dominate for generating livelihoods and income for the family in the rural community of Soddo area. Gradually, women are gaining equal rights with men in accessing land to rent and inherit their parents. Land certification has also benefited the local farmers in terms of reducing border conflict, secured land holding right and guarantee for compensation; promote gender equity that increased access to credit and increased land investment on soil and water conservation. Land certification has benefitted the rural farmers access to credits that majority of sampled households accounting 83.2% got rural credits affording farm inputs cost after land certification. Majority of sampled households accounting 70.5% responded that land certification enabled them to build trust for investment on soil and water conservation practices. Land certification also enabled the rural community to get timely compensation in case of expropriation from the land because of various development activities. However, the participation of women in the land registration and certification program and their representation is very much limited. Findings of our study also indicated that farmer perceived positively the

importance of land registration and certification to ensure tenure security. Besides the perceived tenure security have a positive and significant effect on the likelihood development and investment on soil and water conservation activities. Thus, the rural land certification program has brought positive impact on the perception and importance for investment on soil and water conservation activities in small holder farmers while the land degradation is severe in communal land.

Keywords: Certification, Land, Registration, Perception, Tenure Insecurity

1. INTRODUCTION

Land is a basic natural resource for sustainable development of agrarian based economic countries in which agriculture contributes for larger proportion of Gross Domestic Product (Rahmato, 2007). Land in Ethiopia is owned by the government and its people that land tenure insecurity caused by frequent land redistribution, eviction from holdings and limited land use rights which greatly impacted the farmers for successful implementation of land management interventions through public and community initiative (Rodrick, 1988).

High human population growth in the Global Southern part of Ethiopia has greatly increased population density, land scarcity and competition in rural areas (Tsegaye et al., 2012). Food security of most developing countries is insured through employment of mixed agriculture of crop and animal production with the existence of sustainable land tenure security (Desoto, 2000). In Ethiopia land is the basically owned by the government and its people which give partial right for local farmers in order to employ sustainable conservation of the natural resources (Dagnew et al., 2009).

The lack of persistent land tenure security results in to severe land degradation for the implementation of unsuccessful and sustainable soil and water conservation practices (Amsalu and Graaff, 2007). In most developing countries, the rural population resides in rural areas that depend on land for cultivation and support their livelihood by harnessing the sustainable utilization of natural resources including land and water (Hagos et al., 2002). Severe land degradation in most of developing country has threatened the rural livelihoods resulting to low agricultural productivity and food insecurity (Bekele and Holden, 2000). Despite the fact that scientific land management measures such as sustainable soil and water conservation interventions are essential for reducing land degradation, addressing some of the economic issue in particular for ensuring tenure security requires provision of certified land to rural land owners (Hagos et al., 2002).

In most of developing countries, land is a primary resource for improving their livelihoods in order to support their economy (Adal, 2000). It is also an important asset for farmers to accumulate wealth and also equally importantly to transfer land for future generations (Deininger and Binswanger, 1999). The existence of land tenure insecurity would hamper farmers to invest on land in a sustainable manner to ensure the social and economic development of their respective communities (Nega et al., 2003). Lack of feasible national and regional land policy has a significant influence on the socio-economic growth and sustainable development of agriculture and rural livelihoods in the country (Amsalu and Graaff, 2007).

Currently, Ethiopia is facing challenges due to lack of implementation of feasible land policy and land use plan for managing the ever-increasing environmental degradation and land fragmentation (Bell, 2006). The lack of feasible land policy and land use plan is combined with a rising number of landless people in rural areas and unplanned investment created staggered agricultural development (Adenew and Abdi, 2005). Prior to 1975, Ethiopia's land tenure system which benefits only some but affecting most of the rural households' and left them landless working for the land lords resulted in political conflict and reform was undertaken by the Derg regime (Adenew and Abdi, 2005). Land tenure insecure was highly related to arbitrary evictions of rural households from their land rights by lands owners which were remained as common experience developing economy countries (Hagos et al., 2002).

The existence of unequal land ownerships rights among the citizens was reason to reduced land fertility and land productivity which lead to political grievances and eventually contributed to the downfall of the Feudal land lord system prior to the regime in 1975 (Brasselle et al., 2002). The communist political leadership by the then Derg regime transferred land ownership to as state/government further the user rights of land was distributed to poor households with fragmented manner (Yirga, 2003). Further land redistributions were implemented to accommodate new households and adjust land sizes which have led to declines in tenure security and promote land degradation at larger scale (Holden and Yohannes, 2002).

Historical and empirical evidences on land redistribution and tenure security suggested that the land tenure system in Ethiopia that brought about the opportunity and possibility to lack of adequate access to land, tenure insecurity, diminution of farm holdings, food insecurity and rural poverty (Holden and Yohannes, 2002). The cumulative gaps in lack of feasible land policy mechanism in the county brought the need for designing land use policies and a system for proper land administration that

supports secure property rights (Crewett et al., 2008). Government of Ethiopia, through the Ministry of Agriculture and Rural Development has embarked on a national land certification program in the country and regions respectively (Deininger et al., 2008).

Land legislation is partly designed and implemented at the federal level and partly at the regional level following the constitutional formulation (Dagnew et al., 2009). As the first pioneer region is Tigray started implementation for a land certification process in 1998-99 and used simple traditional methods and system for ensuring tenure security (Rahmato, 2007). Followed by the Amhara region who started in 2003 the land registration and certification process with support of some donor agencies used and tested the certification and registration process using more modern equipment for measurement and data management (Heyi, 2012).

The Oromia and South nations and nationalities peoples' regions started the process of land registration and certification very recently in 2004 regions (Holden et al., 2009). The land registration and certification program particularly started to be implemented in Soddo Zuriya District since 2005-2010 which has primarily focused on the demarcation, measurement and certification of individual agricultural land which temporary and primary issues landholding certificates to rural land holders (Tafesse, 2011). The present study was conducted for analyzing the perception of rural community on land registration and certification and its benefit for tenure security in Soddo Zuriya Woreda.

2. MATERIAL AND METHODS

Description of the study Area

The present study was carried out in Soddo Zuriya Woreda in Wolaita Zone, Southern Nations Nationalities and Peoples Region State located at about 390 km on the main road from Addis Ababa situated in latitude of 6° 49' N and longitude of 37° 45' E. The total area of the Woreda is 481 Km². Soddo Woreda is characterized by moderate to cool sub highland climate in which there is severe land degradation. The mean annual minimum and maximum temperature of the area ranges from 15 °C - 20 °C. About 95 percent of the land included in the woiyna dega (mid-altitude between 1500 and 2500 m.a.s.l) and dega (high altitude above 2500 m.a.s.l) climatic zones (EEA/EEPRI, 2002).

The average annual rainfall is about 1200 mm. According to previous study in 2010 the area had a vast natural forest cover until the turn of the 20th century. However, with high population growth, expansion of agriculture and dependence on wood fuel for domestic energy consumption, the natural forest land has degraded over the years. Presently, scattered natural forests and state-owned plantations cover about 11% of the land in the Woreda/district with left over indigenous broad-leaved trees such as *Cordia* and *Millettia* species as shade in the enset-coffee gardens.

The dominant soil types in the area are vertisols and Nitosols. Nitosols are brown or reddish-brown soils which mainly occur in sub-moist to humid agro-ecological zones. These soils are highly weathered, moderately fertile characterized by high concentrations of nutrients and organic matter in the top few centimeters of the soil horizon. They are well drained, but are vulnerable to erosion and leaching. Soddo Zuriya is one of the most densely populated areas in the country with an average population density of about 511 people per square kilometers.

According to CSA, (2007), there are about 163,771 rural populations of which 80,525 were male and 83,246 were females in the area. The people of Soddo Zuriya belong to the Wolaita ethnic group. The agricultural production system in the study area is crop-livestock mixed. The crop-livestock mixed production system is the predominant system farmers in the area struggling to make a living from the subsistence farming system. Basically, what is termed as the enset farming system? According to Rahmato, (2007), this system involves the dynamic integration of enset and other root crops (taro, sweet potato and other tubers) with cereal crops in a regime of intensive cultivation.

Data Source and Methods of Collection

Both primary and secondary data were used for analyses in our study which includes structured interview, informal interview, focus group discussion and field observation. The primary data sources are farmers' household survey, key informants including development agents and experts at various levels and focus group discussion, secondary data from documents, records and reports of government organizations at regional, zonal and Woreda levels and non-government organizations.

Sampling Technique

Multistage sampling techniques were used to determine the number of sampling households. Primarily, the representative district/Woreda was selected purposively based on years of implementation land certification since the year 2005. The second stage three Kebeles selected randomly those representatives kebeles which comprised more than 70% of households are certified before

2007. The names of selected households in respective woreda were triangulated with the book of registrar at woreda/district level. A total of 149 heads of household respondents were selected systematically using probability proportional to size from the identified three Kebeles.

The sample size was determined by taking different factors such as research cost, time and availability of transport facility. Systematic sampling method was chosen as the preferred sampling technique for this study because the sample units are spread at fixed interval throughout the populations. The number of sample respondents in each rural Kebeles is presented (Table 1).

Structured interview was used to collect data at sample households' level by structured questionnaire. The household survey focused on household characteristics, their perception on land certification and registration in providing tenure security and land management practices by the farmer before and after the intervention were systematically collected and summarized. The questionnaire was pre-tested before the actual conduct of the interview using 5-6 households identified randomly in each site and revised.

Six focus groups discussion a small group comprising five to eight members of the community were interviewed using a semi-structured check list was conducted in each study Kebeles to address issues related to tenure security and land certification and registration that may not have been adequately captured during formal survey. Separated focus group categories including women, elders and youth were used for the purpose of freely expression and collection of relevant data their feelings and aspirations.

Key informants' interviews were carried out including government experts at different level, farmers and Kebele land administration committee from different disciplines. The key informants were selected to get a deeper understanding of the farming community because of their first-hand knowledge and information about the topic and the area.

Table 1 Distribution of sample population by Kebele

No.	Name of KAs	Total HHs in KA	Size of sample population
1	Damot waja	1012	51
2	Delbo wogene	650	33
3	Waraz lasho	1304	65
	Total	2966	149

Sources: Kebele Administration office April, 201

Data analysis

After the completion of data collection, the data were coded and entered into statistical package for social science in SPSS version 21 to computer program for analysis and interpretation. Both descriptive and econometric tools were used to analyze the data from farmers. The important statistical measures that were used to summarize and categorize the research data were means, percentages, frequencies, standard deviations, chi-square and t-test. The degree of association or correlation between two variables X and Y was answered by the use of correlation analysis (Gomez and Gomez, 1984).

3. RESULTS

Perception of Rural Community on Land Certification and Its Benefit for Tenure Security

Table 2 shows household characteristics of 149 respondents used in the present study of which majority of them are male headed households accounting 85.9% and the remaining 14.1% are female headed households. With respect to marital status of the respondents accounting 86.6% are married, 6.7% are widowed, 5.4% are divorced and 1.3% is single unmarried. Only 21 household respondents accounting 14.4% can read and write. Table 2 also shows that out of 149 household heads 21 household heads accounting 14.4% only read and write without attending any formal education; while 71 of respondents accounting 47% are not educated, 38 household heads accounting 25.5% attended elementary or primary school and the remaining 19 household heads accounting 12.8% attended secondary school.

Table 3 shows age group of household respondents between 16-45 accounting 48.99%, 46-64 accounting 46.3% and above 64 years accounted 4.69% respectively. The overall respondent's age belongs with an average of 44.76 years between 26 - 76 years. Majority of the respondents of the respondents accounting 95.3% fall in within the working age group between 16-64 years as the mean age range is 44.76 having mean family size of 6.43 owing mean land holding of 0.54 ha.

Table 2 Descriptive Statistics of household characteristics (n = 149)

Variables	Frequency	Percentage
Education level		
No education	71	47.7
Can read and write	21	14.4
Primary (1-6)	38	25.5
Secondary (7-12)	19	12.8
Marital status		
Married	129	86.6
Single	2	1.3
Widowed	10	6.7
Divorced	8	5.4
Sex		
Male	128	85.9
Female	21	14.1

Table 3 Descriptive Statistics of household characteristics (n = 149)

Variables	Min	Max	Mean	Std. Deviation
Age	26	76	44.76	10.73
Family size	2	14	6.43	1.974
Farm size	0.13	2	0.54	0.381
TLU	0	6.5	2.34	1.465

Table 4 shows status of land registry and certification that got primary land certification book. Out of the total sampled 149 households those accounting 21.5% got certificates in 2005, 27.5% in 2006, 34.9% in 2007, 9.4% in 2008 and 6.7% in 2009. Most households accounting 86.6% are issued joint landholding certificates by the name of husband and wife mentioning the name of other family members and the plot size. Women family heads accounting 12.1% landholding certificates were issued land certificate by their own names. In case of polygamy, woman households were issued separate joint landholding certificates with their husband.

Table 4 Description of the land registration and certification of Sample households (n=149)

Tools	Responses	Frequency	Percent
Whether the land is registered or not	Yes	149	100
	No	0	0
Level of certificate holding	Primary	149	100
	Secondary	0	0
Year the respondent get land certificate	2005	32	21.5
	2006	41	27.5
	2007	52	34.9
	2008	14	9.4
	2009	10	6.7
To whom does the certificate issued	In their own names	2	1.3
	By the name of the wife	18	12.1
	Jointly by husband and wife	129	86.6

Figure 1 shows the impact of land certificate on tenure security of rural community for ensuring land holding right of farmers as result of certificate assurance. The respondents accounting 92.6% perceived that their holdings are secured as a result of certificate and the remaining perceived that certificate cannot secure their holding. Figure 1 also shows the importance of land certification for compensation in case of expropriation from the land. The respondents accounting 96.6% perceived that land certificate which will

give them a guarantee that they will get compensation in the case of eviction and the remaining feels 3.6% that certificate cannot increase the probability to get compensation in case of expropriation.

Figure 1 shows the land certification and border conflict among the local community that majority of sampled households accounting 89.1% believed that border conflict is reduced as result of registration and certification, while 10.1% perceived that there was no change or an increase in border conflicts after certification. Figure 1 shows how land certificate promotes gender equality on land right in which most of the respondents accounting 95.3% confirmed the land registration and certification has maintain gender balance and over 90 % of women cover by the survey also perceived that land certification promoted gender equality on land right.

Figure 1 shows access to credits after land certification that majority of sampled households accounting 83.2% get rural credits for insuring the farm inputs cost as result of registration and certification, while 16.8% perceived that the credit access is not improved because of land registration and certification. Figure 1 also shows potential investment on land for soil and conservation practices after land certification that majority of sampled households accounting 70.5% responded as it enabled them and build trust for land investment on soil and water conservation practices, while 27.5% believe that the status of investing on soil and water conservation activities is not improved because of land registration and certification.

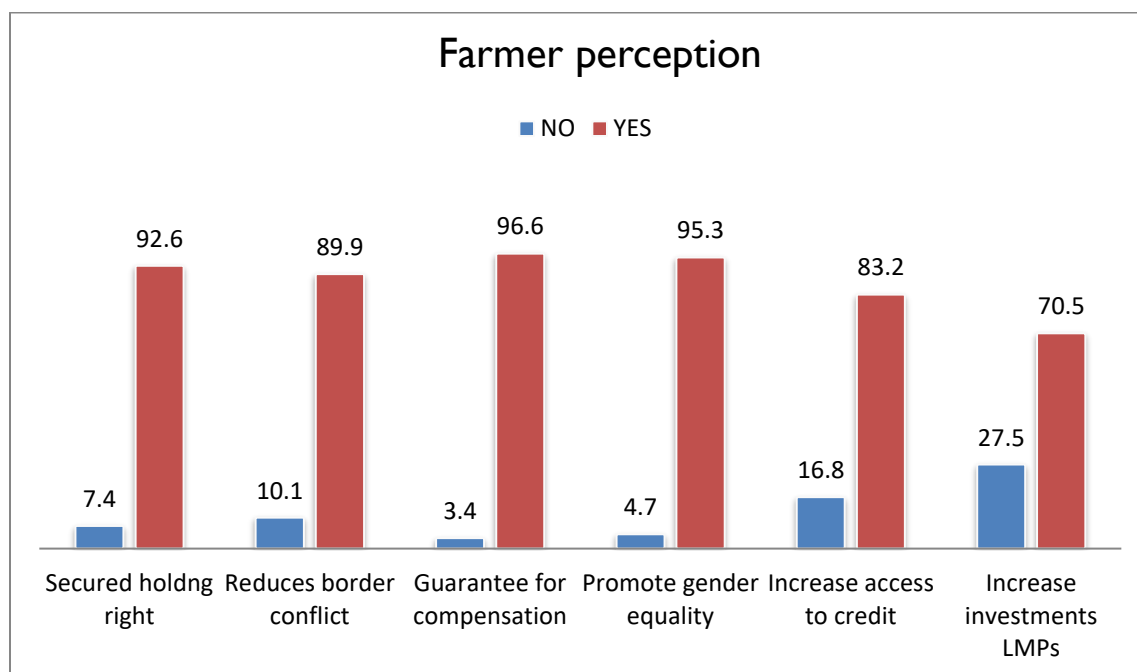


Figure 1 Farmer perception on impact of land certificate on tenure security

Figure 2 shows that majority of the respondents' accounting 72.5% perceived that land redistribution will not take place again in the future, while 14.1% perceived that there will be redistribution again in future nonetheless 13.1% of respondents notify, they don't know what will happen in the future.

Figure 3 shows the status of the household respondents on the tenure security before and after the land certification that 94% of the respondents felt that their land right is secured before getting land certificate, where as 6% of farmers indicated that their land right was secured before getting land certificate. Similarly, household respondents accounting 91.1% perceived that their land right is secured after getting land certificate, here as 8.1% of farmers indicated that their land right was secured before getting land certificate.

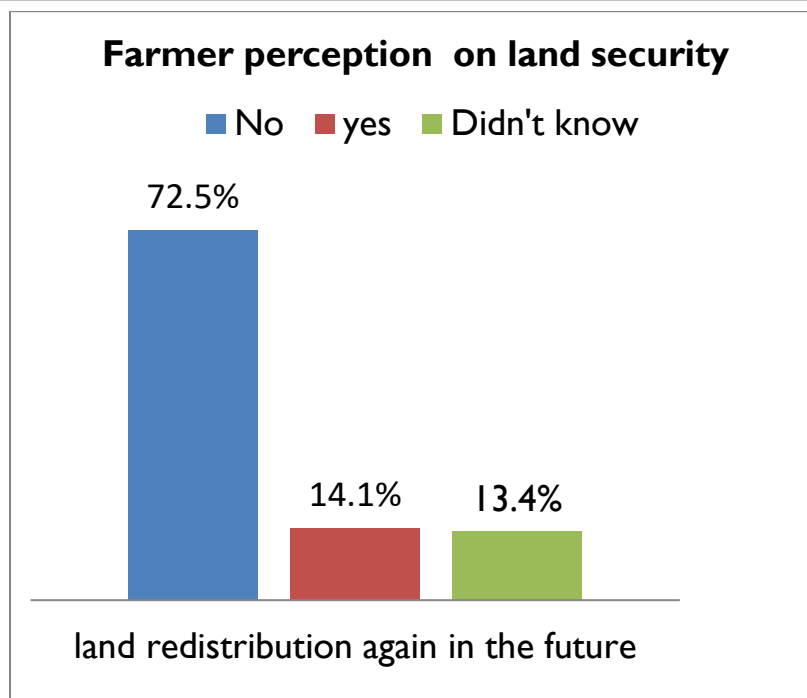


Figure 2 Perception of farmers regarding land redistribution again in the future

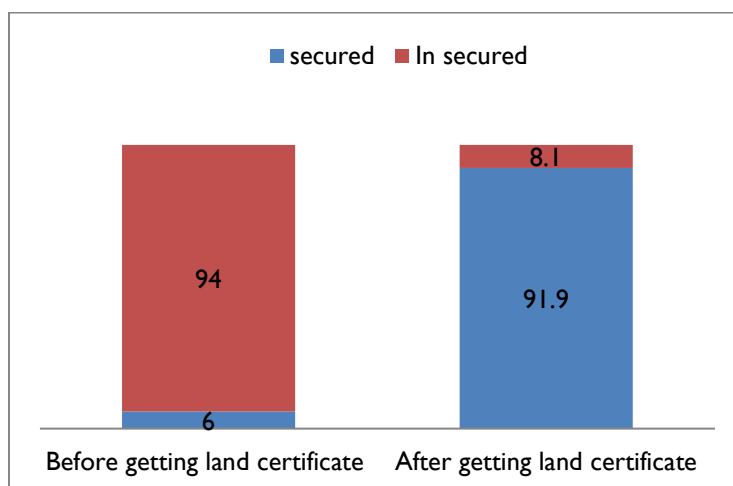


Figure 3 Farmers perception of land security

Table 5 shows the time lapse on the process of land registration and issuance of certificate. The respondents accounting 51.6% perceived that whole land certification process takes 14-45 days, while respondents accounting 21.7% perceived that land certification process takes 46-60 days and the remaining 14.1% of the respondents perceived that the whole certification process takes 61-90 days. Result in Table-8 also shows that most of the respondents accounting 75.5% noted that issuance of the certificates for the land holders after the land is registered which takes five months up to -one year.

Table 6 shows about the source of information for land registration and certification process which reflect their awareness about the meeting held before registration started about the program. Respondents accounting 83.2% got information and participated in the public meeting about the rural land registration program and the rest 16.8% of the got information about the program from Kebele land administration office, development agent, elders and neighbors.

Table 5 Time taken for the whole process of registration and certification

Process of registration	Frequency	Percent	Valid Percent	Cumulative Percent
15-45 days	81	54.4	54.4	54.4
46-60 days	47	31.5	31.5	85.9
61-90 days	21	14.1	14.1	100.0
Total	149	100.0	100.0	
Between registration & certificate issuance				
3-5 months	24	16.1	16.1	16.1
5 - 8 months	59	39.6	39.6	55.7
8 months -1year	55	36.9	36.9	92.6
> 1 year	11	7.4	7.4	100.0
Total	149	100.0	100.0	

Table 6 Households Source of information about land registration and certification process

	Frequency	Percent	Valid Percent	Cumulative Percent
Public meeting	124	83.2	83.2	83.2
Development agents and kebele administration	25	16.8	16.8	100.0
Total	149	100.0	100.0	

4. DISCUSSION

Perception of Rural Community on Land Certification and its Benefit for Tenure Security

Gender balanced land ownership is key for the implementation of sustainable soil and water conservation activities and ensuring rural tenure security. Result of present study in Table-2 showed that out of the total 149 respondents', the male headed households accounted for 85.9% while the remaining 4.1% of respondents are female headed households. The gender-based land holding and involvement in agricultural activities is totally unbalanced in which men are responsible for making the livelihoods and income for the family in the rural community of Soddo Area. Age variation among the household composition has significant difference on the efficiency and power invested on soil and water conservation activities.

Table 2 showed that majority of the household respondents is categorized within the working age group between 16-64 years accounting 95.3 % who own land certificate. The average land owners' age is average 44.76 years which adolescence age in the working force is dominating the agriculture that manages the land and mature enough physically for the implementation of land interventions on soil and conservation practices. This is positive indication that land certificate promotes women right towards tenure security. Results of the present study through key informants and women and men focus group discussants asserted how women are gradually gaining equal rights with men in accessing land. They have the right to use, rent and inherit their parents land like men's do.

In the event of divorce, women get half of the land and half of the agricultural produce from the land. Women together with children should be consulted about land renting matters by the male household head. A study by Tadesse, (2000) indicated that land certification and gender equality brought equal opportunity to access land. But many women of rural Ethiopia and Africa have had almost no land rights in practical and major problems in succession or inheritance of customary land due to customs, culture and certain religious practices and male dominant structure.

Tadesse, (2000) further noted that the land registration and certification program was targeted to alleviating or protecting vulnerable group in which the regional rural land administration and use proclamation No 110/2007 clearly state that any farmer and pastoralist have the right to inherit his possession for his family members; however, if the size of the land is less than the minimum, they have to use their land jointly. Similar studies in northern part of Ethiopia by Giri et al., (2010) documented that most of the farmers have knowledge about their rights and obligation related to land ownership but most of them aware more of their

right than their obligation. This is due to the fact most of the basic land right mentioned by the households like renting the land, transfer the land are recognize in the rural community.

In line with this, a study conducted in Central Rift Valley of Ethiopia indicated that almost all the rural farmers have better awareness about the rights and responsibilities related to land ownership before and after getting certificates. A previous study in 2008 further supported our finding that land reform programs carried out in Africa have the objective to issue the land for free land ownership which are not always succeeded or partially implemented as it's the importance of land certification to ensure tenure security. Deininger et al., (2008) further argued that land certification greatly reduced the confusion and increased the perception among land users that land will or can be expropriated.

The result of our study showed that because of the rural land registration and certification program the land certificate was issued consecutively for four years from 2005-2009 that most households accounting 86.6% are issued joint landholding certificates by the name of husband and wife mentioning the name of other family members and the plot size. In cases, of women family heads accounting 12.1% had landholding certificates which were given by their own names. In case of polygamy, woman is issued separate joint landholding certificates with their husband. The land certification process has maintained the gender balance in which joint landholding certificates have secured by the name of husband and wife mentioning the name of other family members and the plot size.

Similarly, findings of our study indicated that almost 86.6% of the respondents have balanced land holding and ownership certificate which can ensure equal labor and technology and input investment on the land that is being secured. So that both men and women that have good perception of the land registration program in order to employ their family labor for the land management practices through soil and water conservation and afforestation program.

Moreover, the information obtained from key informants and focus group discussion also noted that registration helps to recognize their land boundaries reduce border conflict and complain about boundary encroachment by their neighbor and others. They also further revealed that the certificate is a legal document help them an evidence to keep their landholding rights secure and protect their rights from differ types of land related disputes. This implies that the land reform has a positive impact on reducing the number of border disputes in the Soddo area.

A previous study supported our findings that despite the implementation of the rural land certification process, the rural community have greatly reduces the border conflict and saved their time to make any court related issues to reserve their disputes. A previous study in 2007 documented that in Tigray, northern part of Ethiopia documented that rural land owners well perceived land certification lower risk of eviction and increased likelihood of receiving compensation. A study by World Bank (2010) puts forward that land certification reduces the risk of conflicts about land and encourages farmers to invest in the land to generate economic return and sustainable investment of soil and water conservation.

A study by FAO, (2002) also indicated that land security before and after getting land certificate and also increased their awareness and benefits of labor and capital investment on land, either in use or upon transfer to another holder. A study by Eleni, (2008) have also documented and supported our present findings that land right security can be assured for most of the rural land owners after the assurance of getting the land certificate and have good perception about land security before and after getting land certificate.

The impact of land certificate on tenure security of rural community for ensuring land holding right of farmers' and tenure security after certificate assurance is indicated in the result of the present study. The respondents accounting 92.6% perceived that their holdings secured as a result of getting certificate and the remaining feels that certificate cannot secure their holding. Similarly, the result in our study showed that land certification is very importance of to get timely compensation in case of expropriation from the land because of various development activities. In similar way the result of the resent study also indicated that the land certificate process ensured 96.6% increase the probability to getting compensation in case of expropriation.

A study by Adenew and Abdi, (2005) indicated that unnecessary boundary dispute may arise when using, stones, trees and different temporary physical features are used as boundary markers. In the case that some of these markers are changed by the neighboring land holder, disputes are likely to occur. On the other hand, the involvement of the parties in the initial stage means that they are both accorded a primary negotiation role, which can serve as a basis for the transfer of taken for granted knowledge from generation to generation. However nowadays, if someone does not reach a consensus during this process, the boundary could also be determined by an officer or a court as a supportive solution. In the study area, the rule of thumb method is used to demarcate the boundary.

Figure 2 indicated that importance of land certification for resolving border conflict among the local community in which 89.1% of the respondents perceived that land certification and border conflict are reduced as result of registration and certification, while

10.1% perceived that there was no change or an increase in border conflicts after certification. The border conflict of rural community in land holdings is basically caused that due to lack of appropriate location of the sites using geographic information system and demarcation.

The rural land certification program supports the community to register and certification using the technological application of geographic information system and land demarcation guideline which proves the individual evidence-based land holding. The present study concludes that the land certification and registration process significantly reduce the border conflict among the rural households.

A previous study in 2003, indicated that a series of critical factors need to be considered are the institutional set-up that enforces the right of the land users in the process and the technology of demarcating the boundary between land parcels, access to public information to land user are also equally important. A study by Adenew and Abdi, (2005) also noted that boundary demarcation fits with the conventional view of land certification which creates tenure security through the registering of the demarcated parcel of land which in turn enhances the availability of public information.

Asaminew et al., (2009) supported our findings that the main difference between the temporary and first level certification book is that farmers who hold temporary certification are legally allowed to use their land user right however they are not able to donate, transfer and inherit their land use right. However, first stage certification allowed the right to donate, transfer and inherit their land use right. The second stage certification book will hold precise information which will be done by cadastral surveying. The process of preparing second stage certification expects to use accurate measurement before preparing this certification book every farmer's information has to be recorded in a computer and verified.

Figure 2 indicated that land certificate promotes gender equality on land right most of the respondents accounting 95.3% confirmed the land registration and certification has maintain gender balance and over 90% of women cover by the survey also felt that land certification promoted gender equality on land right. The findings of the study showed that the gender balance in the land equity was proved because of the land registration and certification.

The joint land holding system increased the rural house hold perception on tenure security in which both family labor will be invested on the land so that all will have equal rights to share the befits obtained from the land apart from improving the livelihood the land certification program. It also proves that both genders will have responsibility to spare their labor and resources for the management and conservation of the land through the employment of soil and water conservation and afforestation program.

Figure 2 indicated that majority of sampled households accounting 83.2% have access to rural credits that for insuring the farm inputs cost as result of registration and certification, while 16.8% believe that the credit access is improved because of land registration and certification. Most of the rural land holders in Ethiopia are dependent on rural microfinance institution for purchasing farm inputs like improved seeds and fertilizers and pesticides for the agricultural produce, being the certification of the rural land as prerequisite for getting the rural credit aces the certification of land which ensured the tenure security have brought significant change to get access from the rural micro finance institution so that they have increased the land productivity and production it has also greatly contributed for increasing the household food security and income generation, hence the present study concludes that bland certification ha significantly increased the aces of rural farmers to credit facilities and increase the employment of farm inputs and sustainable management of their land.

Result of present study showed that the farmer perception on impact of land certificate on tenure security there is an alarming rate of land degradation in the country. Land is poorly managed and is losing productivity. Tenure insecurity is the most frequently mentioned cause of such resource degradation. Administrative land redistributions, eviction from holding, limited land rights and restrictions on many land transfer mechanisms in the past regime are the most frequently mentioned cause of tenure insecurity in the region.

However, tenure security is more recognized by the present government as an important land tenure problem and a more specific measure that is forwarded to address this problem is land certification. Tenure security is more about people's perceptions. Therefore, in view farmers' perceptions change on tenure security after certification, the sample household heads were asked their feelings on land inheritance, holding right, border conflict, gender equality, access to credit, land redistribution, compensation and tenure security.

Figure 2 indicated that the land certification program in Soddo Area has brought potential investment on land for soil and conservation practices in which majority of sampled households accounting 70.5% responded that it would enable them and build trust for land investment on soil and water conservation practices, while 27.5% believe that the status of investing on soil and water conservation activities is improved because of land registration and certification.

The findings of the present study concludes that land registration and certification process has brought significant change on the rural community perception to increase the tenure security in order to better invest their labor and resources for the sustainable management of land through investing on soil and water conservation activities. In 2001 study well noted in supporting our findings that in Ethiopia there is national campaign every year for spending 20 free labor days that all villages across the nation implement land management practices through the implementation of soil and water conservation practices. Later on, in summer and rainy time the afforestation program will continue to ensure sustainable forest landscape restoration program.

A study by Ersado et al., (2004) indicated that land certification program especially in Soddo area significantly promoted the rural community perception that land certification would bring results on the sustainable land management. They also affirmed that land certification increases the awareness of prevention water and soil degradation in Ethiopia and show evidence of farmers who apply indigenous conservation practices in degraded areas of Ethiopia there is a high demand for arable lands for farmers.

A study by Minten further indicated that the certificates have been assumed to help motivate farmers to avoid land degradation, for updating the information, identifying land holders and the size of land. It became apparent that the farmers' practices for soil and water conservation carried out with the aim of maintaining soil fertility are slowing down/reducing.

Figure 3 indicated that that majority of farmers' accounting 72.5% perceived that land redistribution will not take place again in the future while 14.1% perceived that there will be redistribution again in future nonetheless 13.1% of respondents notify, they don't know what will happen in the future. Land redistribution in Ethiopia has political and demographic implication which the government reformers take the advantage for gaining political support from the local community. Given the 72.5% of the household respondents do believe that the land redistribution will not take place after the implementation of the land certification process and they have already ensured the tenure security.

The Soddo Area is much known for high demographics change which might bring the land redistribution as the land became scarce resources and the number of populations increase in the area. The findings of the preset study assert that the land certification can significantly reduce the chance of land redistribution by ensuring the tenure security. A study by Adal, (2000) indicated that the land redistribution committee can make frustrate the local farmers and land owners from the investment they are making for the sustainable conservation through soil and water conservation. Sustainable land management can only be secured through avoiding the redistribution.

Figure 3 indicated that status of the household respondents on the tenure security before and after the land registration and certification as 94% respondents felt that their land right is secured before getting land certificate, where as 6% of farmers indicated that their land right was secured before getting land certificate. Similarly, that 91.1% respondents felt that their land right is secured after getting land certificate, here as 8.1% of farmers indicated that their land right was secured before getting land certificate.

The findings of the present study asserted that almost 90% of the respondents perceived that the land certificate ensures their tenure security both before and after getting the land certification in which the land tenure was already secured in the soddo area, the issue of certification does not affect or will affect their right. A study by Gujarati, (2003) documented that theoretically, a land holder can rent his use right to another person for a minimum of three years and a maximum of twenty-five years.

The renting agreements for more than three years are done in writing, submitted and registered in the district level authority office. The amount to be paid for rent is decided in agreement between the person letting and the tenant. In the legal process the person letting must have his/ her land registered in the first level certification book. However, those who have only temporary certification or user rights for land plots less than 0.025 ha are not able to rent their use right.

Figure 4 indicated that the respondents accounting 51.6% perceived that whole land registration process at the time of implementation of land certification and registration in the area takes 14-45 days, while most of the respondents accounting 75.5% noted that issuance of the certificates for the land holders after the land is registered which takes five months up to -one year. The findings of the present study asserts that the land certification process is to long which takes five months up to -one year for the whole registration and certification process.

Table 8 indicated that the source of information for land registration and certification process which reflect their awareness about the meeting held before registration started about the program. Respondents accounting 83.2% got information and participated in the public meeting about the rural land registration program and the rest 16.8% of the got information about the program from Kebele land administration office, development agent, elders and neighbors. The sources of information is very important about the land registration and certification program in Soddo area 83.2% got information and participated in the public meeting where the information sharing is also important and public meeting through the program has greatly supported in order to have good perception about the land tenure security.

A study by Deininger et al., (2008) supported the present study that qualitative evidence suggests that decentralized, participatory, and transparent implementation, issuance of certificates rather than titles and a focus on gender equality helped the program avoid some of the problems raised in the literature on land titling in Africa. A nation-wide survey highlights that access to information or certificates was neither biased against females nor the poor.

Moreover, the process was generally implemented as planned; in particular (i) public meetings were held before and during the certification process; (ii) land use committee were elected and represented most of the sub-Kebeles; and (iii) adjudication relied on village elders to resolve disputes and involved demarcation in the field with neighbors' presence. As the time allowed for the field process was long enough to sort out conflicts locally, the program could adapt to local conditions while still making rapid overall progress.

5. CONCLUSION

Land is one of the basic resources for the sustainable development of Ethiopian economy which greatly contributes lion share of the national gross domestic product. Land degradation is one of global challenges of our time resulting to food insecurity and migration of people due to lack of inappropriate land use plan and management practices. Sustainable forest land scape restoration interventions can improve land productivity in meeting for Sustainable Development Goal-15. Findings of our study indicated that the rural land registration and certification program have brought significant positive effect on farmer perception in providing tenure security in the study area.

Findings of the present also indicated that farmers' perceptions on land certification are crucial in providing and ensuring tenure security. Most of the sample households included in the survey perceived that land certificate gives them the right to transfer their land property right to their children. The land certification program has significantly ensured landholding right, reduced border conflict, promote gender equality, increases access to credit, stop land redistribution and guarantee for compensation in case expropriation.

The rural land certification program had brought a significant positive effect on adoption of long-term investment like tree planting. This implies that land users must have secure property ownership rights of the lands they cultivate if they are to invest in tree planting and soil bund construction work in expectation of long-term benefit. The rural farmers' perceptions on the importance of assuring tenure security have grown through the implementation of rural and registration and certification program. Tenure security is key factor for securing sustainable investment of farmers on soil and water conservation on the private land while the lack of ownership on the communal land affects farmers' sustainable biological and physical soil and water conservation activities in order to achieve the sustainable development goal of making land for life and reducing land degradation.

Ethiopia is actively participating in the implementation of the United Nations for combating desertification and land degradation. The afforestation and reforestation program and government interventions in Ethiopia have brought change with positive trend of progress in combating desertification and land degradation. The land productivity is one of the three strategic sub indicators for the success for the implementation of the convention to attain the land degradation neutral nation by 2030; which marks the great effort done by the nation to achievement of sustainable development.

Informed consent

Not applicable.

Ethical approval

Not applicable.

Conflicts of interests

The authors declare that there are no conflicts of interests.

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Data and materials availability

All data associated with this study are present in the paper.

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